

I CLAIM:

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A.

An apparatus comprising:

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a first device;

a second device;

a switching device coupled to said first device and said second device;

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wherein said switching device is configured to receive a first packet from said first device, wherein said switching device is further configured to detect an adverse transmission condition, wherein in response to an adverse transmission condition, said switching device is configured to drop at least a portion of said first packet, generate a second packet, and convey said second packet to said second device, wherein said second packet includes information about said first packet.

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header
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2. The apparatus of claim 1, wherein said first packet includes a header and a payload, and wherein said switching device is configured to drop said payload and generate said second packet from at least a portion of said header.

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3. The apparatus of claim 1, wherein said second packet includes a flag indicating that at least a portion of said first packet has been dropped.

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4. The apparatus of claim 1, wherein said second device is configured to convey a third packet to said first device in response to receiving said second packet.

5. The apparatus of claim 4, wherein said first packet corresponds to a request, and wherein said first device is configured to reschedule said request in response to receiving said third packet.

5 6. The apparatus of claim 5, wherein said third packet comprises a negative acknowledgement.

7. The apparatus of claim 4, wherein said second device is configured to perform a first operation corresponding to a request indicated by said second packet, and wherein
10 said first packet corresponds to said request.

8. The apparatus of claim 7, wherein said second device is configured to receive a fourth packet subsequent to receiving said second packet, and wherein said second device is configured to perform a second operation corresponding to said fourth packet in
15 response to determining that said second operation is independent of said request.

9. The apparatus of claim 8, wherein said second device is configured to convey a fifth packet corresponding to said fourth packet in response to determining that said second operation is not independent of said request, and wherein said fifth packet
20 comprises a negative acknowledgement.

10. The apparatus of claim 7, wherein said second device is configured to receive a fourth packet subsequent to receiving said second packet, and wherein said second device is configured to perform a second operation corresponding to said fourth packet to
25 complete said request, wherein said first operation was performed in preparation for said request.

11. The apparatus of claim 4, wherein said first packet corresponds to a response to a request, wherein said second device is configured to reschedule said request in response to receiving said second packet, and wherein said third packet comprises the rescheduled request.

12. The apparatus of claim 1, wherein said first device comprises a host interface, and wherein said second device comprises a disk drive.

13. The apparatus of claim 1, wherein said adverse transmission condition comprises congestion above a threshold at said switching device is configured to convey said first packet.

14. The apparatus of claim 1, wherein said adverse transmission condition comprises corruption of said first packet.

15. The apparatus of claim 1, wherein said adverse transmission condition comprises a fault condition preventing routing of said first packet along an intended route.

16. A method comprising:

receiving a first packet from a first device;

determining if an adverse transmission condition is present; and

in response to determining that said adverse transmission condition is present:

dropping at least part of said first packet;

generating a second packet, wherein said second packet includes
information about said first packet; and

conveying said second packet to a second device.

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17. The method of claim 16, wherein said first packet includes a header and a
payload, wherein said dropping comprises dropping said payload, and wherein said
generating comprises converting said header into a severed header.

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18. The method of claim 16, wherein said generating comprises generating a flag that
indicates that at least part of said first packet has been dropped.

19. The method of claim 16, further comprising conveying a third packet to said first
device in response to receiving said second packet.

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20. The method of claim 19, further comprising rescheduling a request in response to
receiving said third packet, wherein said first packet corresponds to said request.

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21. The method of claim 20, wherein said third packet comprises a negative
acknowledgement.

22. The method of claim 19, further comprising performing a first operation
corresponding to a request indicated by said second packet, wherein said first packet
corresponds to said request.

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23. The method of claim 22, further comprising:

receiving a fourth packet subsequent to receiving said second packet;

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determining whether said second operation is independent of said request; and

performing a second operation corresponding to said fourth packet in response to

5 determining that said second operation is independent of said request.

24. The method of claim 23, further comprising:

conveying a fifth packet corresponding to said fourth packet in response to

10 determining that said second operation is not independent of said request,

wherein said fifth packet comprises a negative acknowledgement.

25. The method of claim 22, further comprising:

15 receiving a fourth packet subsequent to receiving said second packet; and

performing a second operation corresponding to said fourth packet to complete
said request.

20 26. The method of claim 19, further comprising:

rescheduling a request in response to receiving said second packet, wherein said

first packet corresponds to a response to said request, and wherein said

third packet corresponds to said request.

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27. The method of claim 16, wherein said first device comprises a host interface, and
wherein said second device comprises a disk drive.

28. The method of claim 16, wherein said adverse transmission condition comprises congestion above a threshold.

29. The method of claim 16, wherein said adverse transmission condition comprises corruption of said first packet.

30. The method of claim 16, wherein said adverse transmission condition comprises a fault condition preventing routing of said first packet along an intended route.

31. A device comprising:

a first port configured to receive a first packet;

a second port;

a switching device coupled to said first port and said second port, wherein said switching device is configured to receive said first packet from a first device at said first port, wherein said switching device is further configured to detect an adverse transmission condition, wherein in response to an adverse transmission condition, said switching device is configured to drop at least a portion of said first packet, generate a second packet, and convey said second packet from said second port to a second device, wherein said second packet includes information about said first packet.

32. The device of claim 31, wherein said second packet includes at least a portion of a header from said first packet.

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33. The device of claim 32, wherein said second packet includes a flag indicating that said payload has been dropped.

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